

Bioterrorism Proficiency Testing Challenge: Who Learned the Most?

by Laura Kentala and Yolanda Houze, DOH/PHL

In August, the Washington State Public Health Laboratories bioterrorism response training team sent the second set of proficiency test (PT) samples to 88 Sentinel and Reference labs across the state. Sixty-nine were completed and returned. The first part of the proficiency test had six questions that dealt with one potential agent of bioterrorism and how it should be handled by a Sentinel laboratory. This part of the test was designed to examine the lab's ability to recognize such an organism and to determine if the laboratory could rule out or refer the isolate to a reference lab. The test consisted of 19 possible correct answers. Of the 69 completed tests, 11 labs got all 19 answers correct, 13 labs missed only one answer, and 6 labs missed 8 answers.

The second part of the test was to fulfill a CDC grant deliverable. All Sentinel labs were to be tested on their ability to pack and ship a container on the weekend, evening or holiday. A container system was provided with tubes, absorbent material, return label, lab form, and instructions to send the package to the PHL as a diagnostic specimen or biological substance, Category B.

Some findings from the first part of the test were:

- Everyone reported the correct Gram stain result!
- Most labs contacted the appropriate people.
- No labs contacted the media.
- A few labs did not recognize that additional work needed to be done in a biosafety cabinet.

- Many labs thought there was no need to perform a test for X and V factor requirements (the standard method for identifying *Haemophilus* species which might be confused with *Brucella* or *Francisella*).
- Two labs **ruled out** *Brucella* species. We are sure this was due to a misreading of the question.
- One lab stated that they do not read culture plates but rather send them to their reference laboratory.

The packaging and shipping portion of the proficiency test posed the most problems for many laboratories. Some findings from the second part of the test were:

- Many labs inappropriately filled out the lab form (most common error).

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Practice Guidelines

The following practice guidelines have been developed by the Clinical Laboratory Advisory Council. They can be accessed at the following website:
www.doh.wa.gov/lqa.htm

Anemia	Lipid Screening
ANA	PAP Smear
Bioterrorism Event Mgmt	Point-of-Care Testing
Bleeding Disorders	PSA
Chlamydia	Rash Illness
Diabetes	Red Cell Transfusion
Group A Strep Pharyngitis	Renal Disease
Group B Streptococcus	STD
Hepatitis	Thyroid
HIV	Tuberculosis
Infectious Diarrhea	Urinalysis
Intestinal Parasites	Wellness

Basic Courses In Parasitology: A Four Part Series

Course Objective:

Upon completion of the four-part wet laboratory courses, participants will gain confidence in the identification of intestinal and blood parasites from concentrates, permanent stain preparations, and blood smears.

Course Location:

The course is located at the Washington State Public Health Laboratories in Shoreline, Washington.

Course Content:

Through a series of lectures and slides, participants will receive information designed to assist them in the identification of intestinal and blood parasites. Ample time will be given to test their skills in the hands-on microscopic identification of intestinal and blood parasites.

Part I: Helminths - Jan. 10 & 11, 2007

Upon completion of this two-day wet laboratory course, participants will gain confidence in the identification of intestinal parasites from the phylum helminth, nematode, cestode, or trematode. The laboratory sessions will focus on parasite concentrates only.

Part II: The Protozoans - March 21 & 22, 2007

Upon completion of this two-day wet laboratory course,

participants will gain confidence in the identification of intestinal parasites from the phylum Protozoa. The laboratory sessions will focus on parasite concentrates only.

Part III: Reading Trichromes - May 24 & 25, 2007

Upon completion of this two-day wet laboratory course, participants will gain confidence in the protozoan identification by trichrome slide examination.

Part IV: Blood Parasites - July 10 & 11, 2007

Participants will receive information designed to assist them in the identification of the different species of blood parasites. Malaria identification is the primary focus for the class. Identification of other less prevalent, medically important blood parasites such as Babesia, Leishmania, microfilaria and Trypanisoma will be covered as well.

Class Time: Registration will begin at 8:00 a.m. on the first day of the course and the first session will begin at 8:15 a.m. More information can be obtained by contacting the Training Program Assistant: phone: 206-418-5402; fax : 206-418-5445; email: phl.training@doh.wa.gov. A registration form is also available on our website (see the bottom of page 3).

Course Instructor:

Laura Kentala has over 20 year's experience in both clinical and environmental microbiology. She has worked in both public health and private laboratories. Laura has a BA Degree in Zoology with a minor in microbiology from the University of Washington. Laura has many years experience in teaching classes at the WSPHL in clinical parasitology and water bacteriology. Attending her classes are laboratory technicians from around the United States. She has also authored and co-authored articles in several areas of microbiology.

Continuing Education Units:

Students will receive 1.8 CEUs for completion of each part in this series. A total of 7.2 CEUs will be given for completion of the four-part series.

Parasitology Course Registration form: See page 3

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Bioterrorism PT Challenge, continued from page 1

- Many labs sent the package as a *Brucella* culture which would have required a different method of shipping and labeling.
- Other common errors included: improperly sealed primary containers; no absorbent material around the primary container; and no labels on the primary containers.
- Some labs used containers from mixed packing container systems.
- One laboratory sent the box back to PHL without packing it.

Originally the plan was to have the labs repeat the shipping portion of the PT until they were able to successfully complete the task with no mistakes. Because so many laboratories had minor errors of one type or another, it was determined that instead of sending them another sample to re-pack, a letter noting the packaging errors would be sent with a request that the lab email their corrected packing and shipping protocols. More than one third of the laboratories responded.

Thank you to the laboratories that provided good feedback. We will use this information to improve future proficiency testing challenges. Examples included:

- Laboratories in eastern Washington would more likely send their samples to the Spokane Regional Health District LRN Reference Laboratory.
- Some laboratories in western Washington have couriers to the state PHL so they would not be mailing samples at all.
- Some laboratories would have sent the sample by taxi if it had been an emergency.
- Some laboratories did send their sample by courier only to have it not accepted by the PHL weekend staff (the PHL should be notified for weekend delivery prior to sending).

This proficiency test was meant for laboratories to determine if their Emergency Response Plans are functional and to determine if laboratory personnel during off hours are familiar with packing and shipping protocols.

Some laboratories discovered some major gaps in their plans and have since worked to make revisions. The bioterrorism training team learned a lot about how individual laboratories operate and will work even harder to provide clearer and more realistic exercises in the future. We truly appreciate your participation.

Basic Parasitology Training Course Series Registration Form

Name: _____

Employer: _____

Employer Address: _____

City: _____ State: _____ Zip: _____

Work Phone: _____ FAX: _____

E-mail: _____ Message Phone: _____

Class preference: (check as many as applicable)

☐ **Complete Parasitology Series, Parts I-IV** (\$830 before Jan. 02, 2007 \$880 after Jan. 02, 2007)

☐ **Part I: Helminths, Jan. 10 & 11, 2007**

\$220 before 01/02/07 & \$240 after 01/02/07

☐ **Part II: Protozoans, March 21 & 22, 2007**

\$220 before 03/13/07 & \$240 after 03/13/07

☐ **Part III: Trichomes, May 24 & 25, 2007**

\$220 before 05/02/07 & \$240 after 05/02/07

☐ **Part IV: Blood Parasites, July 10 & 11, 2007**

\$220 before 07/02/07 & \$240 after 07/02/07

Complete the registration form and mail to the Department of Health, PHL Training Program **1610 NE 150th Street * PO Box 550501*Shoreline, WA 98155-9701**; fax to: **(206) 418-5445**; e-mail to: phl.training@doh.wa.gov. A registration form is also available on our website at: <http://www.doh.wa.gov/ehsphl/phl/training/train.htm>. A confirmation packet, containing payment instructions, and a map to the course location, will be mailed to you. Please **do not** send money with your registration form.

TB Reporting Change for Laboratories Effective 01/01/2007

REPORT ALL
PRESUMPTIVE AND CONFIRMED
LABORATORY RESULTS OF
Mycobacterium tuberculosis
within two (2) days to:

Phone: (360) 236-3397

Fax: (360) 236-3405

Address: DOH TB Program

PO Box 47837

Olympia, WA 98504

see article: November 2006 Elaborations

Calendar of Events

PHL Training Classes:

(<http://www.doh.wa.gov/ehsphl/phl/training/train.htm>)

Basic Parasitology Series: Part I The Protozoans

January 10 & 11, 2007 Shoreline

2007 WSSCLS/NWSSAMT Spring Meeting

April 26-28, 2007 Kennewick

Northwest Medical Laboratory Symposium

October 24-27, 2007 Seattle

14th Annual Clinical Laboratory Conference

November 2007 Seattle

Contact information for the events listed above can be found on page 2. The Calendar of Events is a list of upcoming conferences, deadlines, and other dates of interest to the clinical laboratory community. If you have events that you would like to have included, please mail them to ELABORATIONS at the address on page 2. Information must be received at least one month before the scheduled event. The editor reserves the right to make final decisions on inclusion.